UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,527	11/06/2003	Daniel Baumberger	42339-192058	7357

26694   7590   10/17/2008
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EXAMINER
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ART UNIT	PAPER NUMBER
2194	

MAIL DATE	DELIVERY MODE
10/17/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/701,527	BAUMBERGER, DANIEL
	Examiner	**Art Unit**
	Abdou Karim Seye	2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 July 2008</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-8,10-15 and 17-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-8, 10-15, 17-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1, 3-8, 10-15 and 17-20 are pending in this application.

Claim Objections

2.   Claim 8 is objected to because of the following informalities:

 Claim 18 contains this expression " for "The examiner considers the following

expression " for " as a typographical error from the applicant.

       A correction is required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and
> distinctly claiming the subject matter that the applicant regards as his invention.

4.   Claims 1, 3-5, 8, 10-14 and 15, 17-20 are rejected under 35 U.S.C. 112,

second paragraph, as being indefinite for failing to particularly point out and

distinctly claim the subject matter which applicant regards as the invention.

       A. The following terms lack antecedent basis:

       (i) " the page" , Claims 5, 13 and 19.

       B. The following claims language is unclear and indefinite:

As per claim 1, line 5, it is not clearly understood what is meant by "the virtual machine in an address space" since, as it's known in the art that only virtual machine data/code can be maintained in memory space.

As per claim 8, line 15-16, it is not clearly understood what is meant by "the virtual machine in an address space" since, as it's known in the art that only virtual machine data/code can be maintained in memory space.

As per claim 15, line 5-6, it is not clearly understood what is meant by "the virtual machine in an address space" since, as it's known in the art that only virtual machine data/code can be maintained in memory space.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103 (a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or
described as set forth in section 102 of this title, if the differences between the subject matter
sought to be patented and the prior art are such that the subject matter as a whole would
have been obvious at the time the invention was made to a person having ordinary skill in the

art to which said subject matter pertains. Patentability shall not be negatived by the manner
in which the invention was made.

6.   Claims 1, 3-7 and 15, 16-20, are rejected under 35 U.S.C. 103 (a) as

being unpatentable over Vasudeva (US 20040267691) in view of Holmberg (US

6345351).

7.   As to claims 1 and 15, Vasudeva teaches the invention substantially as

claimed a method and product comprising:

    utilizing first and second virtual machine queues (209 and 224, FIG. 2C;

paragraph 41 and 44) associated with respective first and second virtual

machines (204 and 227, FIG. 2C) to communicate between the virtual machines

(paragraph 49); and

    updating a page table (218; FIG. 2B) by a processor (FiG. 2B; paragraph 48,

processor) by placing a page (paragraph 39; where the information collected is a

placed in a page) in address space (paragraph 39 and 41)..

8.   Vasudeva does not explicitly teach a page associated with the first virtual

machine in an address space associated with the second virtual machine.

9.   Holmberg discloses a page associated with a Job/first virtual machine in

an address space (601, FIG. 6a) associated with a Job2/ second virtual machine

(col. 14, lines 56-59).

10.   It would be obvious to a person of ordinary skill in the art at the time the

invention was made to modify Vasudeva's invention with holmberg's to provide a

page associated with the first virtual machine in an address space associated

with the second virtual machine for updating a page table. One would be

motivated to have a page in an address space associated with a first and second

virtual machine in order to maintain the integrity of page data stored in

memory/database tables.

11.   As to claims 3 and 17, Vasudeva teaches, wherein updating includes:

placing at least one of data and an address associated with the page into a first

virtual machine control structure (216, FIG. 2C, paragraph 42, where the control

module (216) is the first virtual control structure) associated with the first virtual

machine; exiting the first virtual machine; placing the at least one of data and

address into the second virtual machine queue ; and dequeueing the second

virtual machine queue (paragraph 41 and 46, "transferring the data from the

queue", where this claimed element of Vasudeva's reference meet the claimed

limitation of the claim).

12.   As to claims 4 and 18, Vasudeva teaches , wherein dequeueing includes:

reading the at least one of data and address into a second virtual machine

control structure associated with the second virtual machine; and storing the at

least one of data and address into the address space associated with the second

virtual machine (paragraph 39; "reads and writes data" where this claimed

element of Vasudeva's reference meet the claimed limitation of the claim).

13.   As to claims 5 and 19, Vasudeva teaches, wherein the page contains a

message and the method further comprises: processing the message within the

second virtual machine (paragraph 39).

14.   As to claim 6, Vasudeva teaches, wherein exiting occurs immediately after

placing the at least one of data and an address associated with the page into the

first virtual machine control structure (paragraph 46).

15.   As to claims 7 and 20, Vasudeva teaches, further comprising: conveying

identification information associated with the first and second virtual machines

between the first and second virtual machines via the first and second virtual

machine queues (paragraph 39; where the claimed elements "process" and

"identification" of Vasudeva's reference meet the claimed limitation of the claim).

16.   Claims 8, 10-14 are rejected under 35 U.S.C. 103 (a) as unpatentable

over Vasudeva (US 20040267691) in view Waldspurger (US 7412492) of and

further in view of Holmberg (US 6345351).

17.   As to claim 8, Vasudeva teaches the invention substantially as claimed a

computer system comprising:

        at least one hardware processor (236, FIG. 2A); and

        a computer readable memory (268, FIG. 2A) comprising program

instructions, executable by the at least one processor, for:

  first and second virtual machines (204 and 227, FIG. 2C); a first virtual machine

control structure (216, FIG. 2C) associated with the first virtual machine, the first

virtual machine control structure having a first virtual machine queue (209, FIG.

2C) adapted to enqueue and dequeue a message;

    a second virtual machine control structure (232, FIG. 2C) associated with the

second virtual machine, the second virtual machine control structure (232, FIG.

2C) having a second virtual machine queue (224, FIG. 2C) adapted to enqueue

and dequeue a message.

18.   Vasudeva does not explicitly teach a virtual machine monitor coupled to

the first and second virtual machines , the virtual machine monitor adapted to

supervise communication between the first and second virtual machines and

update a page table by a processor by placing a page in an address space.

19.   Waldspurger discloses a virtual machine monitor (500, FIG. 2; col. 17,

lines 19-20) coupled to the first and second virtual machines, the virtual machine

monitor adapted to supervise communication between the first and second virtual

machines and update a page table in by a processor by placing a page in an

address space (FIG. 2, col. 17, lines 15-25; col. 17, lines 49-52 and col. 18, lines

1-33).

20.   It would be obvious to a person of ordinary skill in the art at the time the

invention was made to modify Vasudeva's invention with Waldspurger's to

provide a virtual machine monitor coupled to the first and second virtual

machines and the first and second virtual machine control structures and to

supervise communication between first and second virtual machine and update a

page table in by a processor by placing a page in an address space . One would

be motivated to include a virtual machine monitor in order to provide efficient use

of resource by clients (applications, users, etc.)

21.   The combination of Vasudeva in view of Waldspurger as discussed

above shows the limitation claimed, except they do not specifically discloses a

page associated with the first virtual machine in an address space associated

with the second virtual machine.

22.   Holmberg discloses a page associated with a Job/first virtual machine in

an address space (601, FIG. 6a) associated with a Job2/ second virtual machine

(FIG. 6a; col. 14, lines 56-59).

23.   It would obvious to a person of ordinary skill in the art at the time the

invention was made to not only include a virtual machine monitor coupled to the

first and second virtual machines , the virtual machine monitor adapted to

supervise communication between the first and second virtual machines , but

also to include a page associated with the first virtual machine in an address

space associated with the second virtual machine as taught by Holmberg in the

system of Vasudeva modified by Waldspurger in order to maintain the integrity

of data stored in memory address space.

24.   As to claims 10-12, they are rejected for the same reasons as 3 above .

25.   As to claim 13, it is rejected for the same reasons as claim 5 above.

26.   As to claim 14, it is rejected for the same reasons as claim 7 above.

Conclusion

27.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdou Karim Seye whose telephone number is 571-270-1062. The examiner can normally be reached on Monday - Friday 8:30 - 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, An Meng can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Li B. Zhen/   /Abdou Karim Seye/
Primary Examiner, Art Unit 2194   Examiner, Art Unit 2194